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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,504

10/18/2005

Alexander Leybovich

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7443

33805 7590 04/26/2007  
WEGMAN, HESSLER & VANDERBURG  
6055 ROCKSIDE WOODS BOULEVARD  
SUITE 200  
CLEVELAND, OH 44131

EXAMINER

KWOK, HELEN C

ART UNIT

PAPER NUMBER

2856

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/553,504	Applicant(s) LEYBOVICH, ALEXANDER	
	Examiner Helen C. Kwok	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 36-55 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/26/06</u> | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 36-49 and 53 are objected to because of the following informalities.

Appropriate correction is required.

In claim 36, line 2, the word – a – should be inserted before the phrase “front surface/bonded surface interface --”. In line 3, the “the target” should be changed to – a target –. In line 6, the phrase “of sonic energy” should be inserted after the word “pulses” to provide clarity. In line 14, the word – interface – should be inserted before the word “echoes”.

In claim 37, line 1, the phrase “sputter target” should be changed to – target – to provide proper antecedent basis.

In claim 45, line 1, the phrase “sputtering target” should be changed to – said target – to provide proper antecedent basis.

In claim 46, line 1, the phrase “the sputter target” should be changed to – the target – to provide proper antecedent basis. In line 2, the phrase “the sputter target” should be changed to – the target.

In claim 47, line 6, the word – front – should be inserted before the word “surface” to provide antecedent basis for later claims. In line 9, the phrase “the specimen thickness” should be changed to – the target thickness – to provide antecedent basis. In line 11, the phrase “the data acquisition” should be changed to – a data acquisition --.

In claim 53, lines 1-2, the phrase "the rotational speed" should be changed to – the rotational speed --.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 36-46, 48-49 and 51-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 36, line 16, the phrase "measured transit time" is not clear on its meaning. Is this the transit time that is determined in step e) or is this another transit time being measuring? If this is the transit time of step e), then the phrase "measured transit time" should be amended to read – the determined transit time --. Also, in line 19, the phrase "the value" is not clear. What "value" is being referred to here? Please clarify.

Furthermore, claims 37-46, 48-49 and 51-55 are indefinite. The dependency of these claims depend on cancelled claims 1-35. Please correct and make certain that antecedent basis are provided when new dependency are provided to the claims.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 50 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,406,850 (Bouchard et al.).

Bouchard et al. discloses a method of testing a sputtering target comprising, as illustrated in Figures 1-4, positioning a sputter target assembly having a component 10 on a mounting member 12; providing a source of irradiation sonic energy 16 at data acquisition frequency (i.e. 0.5 MHz); providing movement 32 of the assembly relative to the source of irradiation sonic energy; sequentially irradiating the component from the source of irradiation sonic energy; detecting consecutive echoes and determining the thickness of the component by determining time intervals between consecutive echoes 24,26,28,30. (See, column 2, line 28 to column 3, line 56 and claim 7).

***Allowable Subject Matter***

6. Claims 36-49 are allowable over the prior art of record. The claims would be allowable if rewritten or amended to overcome the objection(s) and rejection(s) under 35 U.S.C. 112, 2nd paragraph, as set forth above in this Office action.

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7. Claims 51-55 are objected to as being dependent upon a rejected base claim, however, claim 50 would be allowable if rewritten to include the limitation of claim 51.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references cited are related to measuring thickness of a test specimen.

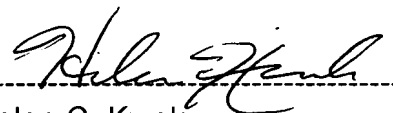
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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Helen C. Kwok  
Art Unit 2856

hck  
April 18, 2007